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Occupational Employment and Wages in Tulsa, May 2016

Workers in the Tulsa Metropolitan Statistical Area had an average (mean) hourly wage of \$21.56 in May 2016, about 10 percent below the nationwide average of \$23.86, according to the U.S. Bureau of Labor Statistics. Assistant Commissioner for Regional Operations Stanley W. Suchman noted that, after testing for statistical significance, wages in the local area were lower than their respective national averages in 16 of the 22 major groups, including education, training, and library; computer and mathematical; and food preparation and serving related. Only one local group—production occupations—had wages that were measurably higher than the national average. Wage levels in the five remaining occupational groups were not statistically different from their respective national averages.

When compared to the nationwide distribution, local employment was more highly concentrated in 6 of the 22 occupational groups, including production; installation, maintenance, and repair; and sales and related. Conversely, 11 groups had employment shares significantly below their national representation, including education, training, and library; business and financial operations; and computer and mathematical. (See [table A](#) and [box note](#) at end of release.)

Table A. Occupational employment and wages by major occupational group, United States and the Tulsa, OK Metropolitan Statistical Area, and measures of statistical significance, May 2016

Major occupational group	Percent of total employment			Mean hourly wage			Percent difference ⁽¹⁾
	United States	Tulsa, OK		United States	Tulsa, OK		
Total, all occupations	100.0	100.0		\$23.86	\$21.56	*	-10
Management	5.1	5.6	*	56.74	49.59	*	-13
Business and financial operations	5.2	4.1	*	36.09	31.69	*	-12
Computer and mathematical	3.0	1.9	*	42.25	34.86	*	-17
Architecture and engineering	1.8	2.1	*	40.53	38.34	*	-5
Life, physical, and social science	0.8	0.5	*	35.06	33.33		-5
Community and social service	1.4	1.3	*	22.69	20.73	*	-9
Legal	0.8	0.8		50.95	52.64		3
Education, training, and library	6.2	5.1	*	26.21	18.82	*	-28
Arts, design, entertainment, sports, and media	1.4	0.9	*	28.07	22.42	*	-20
Healthcare practitioners and technical	5.9	5.6	*	38.06	37.50		-1
Healthcare support	2.9	3.2		14.65	13.64	*	-7
Protective service	2.4	2.0	*	22.03	19.09	*	-13
Food preparation and serving related	9.2	9.5		11.47	9.73	*	-15
Building and grounds cleaning and maintenance	3.2	2.4	*	13.47	11.57	*	-14
Personal care and service	3.2	2.2	*	12.74	11.39	*	-11
Sales and related	10.4	11.3	*	19.50	17.72	*	-9
Office and administrative support	15.7	15.8		17.91	16.99	*	-5

Note: See footnotes at end of table.

Table A. Occupational employment and wages by major occupational group, United States and the Tulsa, OK Metropolitan Statistical Area, and measures of statistical significance, May 2016 - Continued

Major occupational group	Percent of total employment			Mean hourly wage			
	United States	Tulsa, OK		United States	Tulsa, OK		Percent difference ⁽¹⁾
Farming, fishing, and forestry	0.3	0.1	*	13.37	12.35		-8
Construction and extraction	4.0	4.7	*	23.51	20.56	*	-13
Installation, maintenance, and repair	3.9	5.3	*	22.45	22.43		0
Production	6.5	9.2	*	17.88	18.77	*	5
Transportation and material moving	6.9	6.5		17.34	16.42	*	-5

Footnotes:

(1) A positive percent difference measures how much the mean wage in the Tulsa, OK Metropolitan Statistical Area is above the national mean wage, while a negative difference reflects a lower wage.

Note: * The percent share of employment or mean hourly wage for this area is significantly different from the national average of all areas at the 90-percent confidence level.

One occupational group—installation, maintenance, and repair—was chosen to illustrate the diversity of data available for any of the 22 major occupational categories. Tulsa had 22,850 jobs in installation, maintenance, and repair, accounting for 5.3 percent of local area employment, significantly higher than the 3.9-percent national share. The local average hourly wage for this occupational group was \$22.43, not significantly different from the national average of \$22.45.

Some of the larger detailed occupations within the installation, maintenance, and repair group included general maintenance and repair workers (4,580), aircraft mechanics and service technicians (2,780), and automotive service technicians and mechanics (2,080). Among the higher-paying jobs were first-line supervisors of mechanics, installers, and repairers, as well as aircraft mechanics and service technicians, with mean hourly wages of \$31.68 and \$31.27, respectively. At the lower end of the wage scale were tire repairers and changers (\$10.62) and helpers-installation, maintenance, and repair workers (\$14.68). (Detailed data for installation, maintenance, and repair workers are presented in [table 1](#); for a complete listing of occupations see www.bls.gov/oes/current/oes_46140.htm.)

Location quotients allow us to explore the occupational make-up of a metropolitan area by comparing the composition of jobs in an area relative to the national average. (See [table 1](#).) For example, a location quotient of 2.0 indicates that an occupation accounts for twice the share of employment in the area than it does nationally. In the Tulsa metropolitan area, above average concentrations of employment were found in many of the occupations within the installation, maintenance, and repair group. For instance, aircraft mechanics and service technicians were employed at 7.0 times the national rate in Tulsa, and machinery maintenance workers, at 3.3 times the U.S. average. The Tulsa location quotient for aircraft mechanics and service technicians was among the highest in all metropolitan areas for this particular occupation. On the other hand, automotive service technicians and mechanics had a location quotient of 1.0 in Tulsa, indicating that this occupation's local and national employment shares were similar.

These statistics are from the Occupational Employment Statistics (OES) survey, a federal-state cooperative program between BLS and State Workforce Agencies, in this case, the Oklahoma Employment Security Commission.

Note

A value that is statistically different from another does not necessarily mean that the difference has economic or practical significance. Statistical significance is concerned with the ability to make confident statements about a universe based on a sample. It is entirely possible that a large difference between two values is not significantly different statistically, while a small difference is, since both the size and heterogeneity of the sample affect the relative error of the data being tested.

Technical Note

The Occupational Employment Statistics (OES) survey is a semiannual mail survey measuring occupational employment and wage rates for wage and salary workers in nonfarm establishments in the United States. The OES data available from BLS include cross-industry occupational employment and wage estimates for the nation; over 650 areas, including states and the District of Columbia, metropolitan statistical areas (MSAs), metropolitan divisions, nonmetropolitan areas, and territories; national industry-specific estimates at the NAICS sector, 3-, 4-, and selected 5- and 6-digit industry levels, and national estimates by ownership across all industries and for schools and hospitals. OES data are available at www.bls.gov/oes/tables.htm.

OES estimates are constructed from a sample of about 1.2 million establishments. Each year, two semiannual panels of approximately 200,000 sampled establishments are contacted, one panel in May and the other in November. Responses are obtained by mail, Internet or other electronic means, email, telephone, or personal visit. The May 2016 estimates are based on responses from six semiannual panels collected over a 3-year period: May 2016, November 2015, May 2015, November 2014, May 2014, and November 2013. The overall national response rate for the six panels, based on the 50 states and the District of Columbia, is 73 percent based on establishments and 69 percent based on weighted sampled employment. The unweighted employment of sampled establishments across all six semiannual panels represents approximately 58 percent of total national employment. The sample in the Tulsa Metropolitan Statistical Area included 3,539 establishments with a response rate of 77 percent. For more information about OES concepts and methodology, go to www.bls.gov/news.release/ocwage.tn.htm.

The May 2016 OES estimates are based on the 2010 Standard Occupational Classification (SOC) system and the 2012 North American Industry Classification System (NAICS). Information about the 2010 SOC is available on the BLS website at www.bls.gov/soc and information about the 2012 NAICS is available at www.bls.gov/bls/naics.htm.

Metropolitan area definitions

The substate area data published in this release reflect the standards and definitions established by the U.S. Office of Management and Budget.

The **Tulsa Metropolitan Statistical Area** includes Creek, Okmulgee, Osage, Pawnee, Rogers, Tulsa, and Wagoner Counties in Oklahoma.

Additional information

OES data are available on our regional web page at www.bls.gov/regions/southwest. Answers to frequently asked questions about the OES data are available at www.bls.gov/oes/oes_ques.htm. Detailed technical information about the OES survey is available in our Survey Methods and Reliability Statement on the BLS website at www.bls.gov/oes/current/methods_statement.pdf.

Information in this release will be made available to sensory impaired individuals upon request . Voice phone: (202) 691-5200; Federal Relay Service: (800) 877-8339.

Table 1. Employment and wage data from the Occupational Employment Statistics survey, by occupation, Tulsa, OK Metropolitan Statistical Area, May 2016

Occupation ⁽¹⁾	Employment		Mean wages	
	Level ⁽²⁾	Location quotient ⁽³⁾	Hourly	Annual ⁽⁴⁾
Installation, maintenance, and repair occupations	22,850	1.4	\$22.43	\$46,650
First-line supervisors of mechanics, installers, and repairers	1,910	1.4	31.68	65,900
Aircraft mechanics and service technicians	2,780	7.0	31.27	65,040
Electrical and electronics repairers, commercial and industrial equipment	260	1.3	27.64	57,490
Control and valve installers and repairers, except mechanical door	250	1.8	25.56	53,170
Industrial machinery mechanics	970	0.9	24.51	50,990
Electrical power-line installers and repairers	630	1.7	24.37	50,690
Riggers	50	0.7	23.88	49,670
Telecommunications equipment installers & repairers, except line installers	690	1.0	22.63	47,070
Telecommunications line installers and repairers	680	2.2	22.33	46,440
Mobile heavy equipment mechanics, except engines	430	1.1	21.91	45,570
Heating, air conditioning, and refrigeration mechanics and installers	1,050	1.2	21.78	45,300
Millwrights	(5)	(5)	21.67	45,070
Bus and truck mechanics and diesel engine specialists	640	0.8	21.52	44,750
Medical equipment repairers	190	1.4	21.37	44,450
Outdoor power equipment and other small engine mechanics	70	0.6	20.85	43,360
Automotive body and related repairers	360	0.8	20.80	43,260
Security and fire alarm systems installers	490	2.4	19.91	41,400
Maintenance workers, machinery	900	3.3	19.78	41,140
Electric motor, power tool, and related repairers	60	1.1	19.56	40,680
Farm equipment mechanics and service technicians	(5)	(5)	19.12	39,770
Installation, maintenance, and repair workers, all other	640	1.4	19.06	39,650
Automotive service technicians and mechanics	2,080	1.0	18.92	39,350
Motorcycle mechanics	90	1.8	18.73	38,950
Locksmiths and safe repairers	(5)	(5)	18.30	38,060
Home appliance repairers	130	1.3	18.16	37,760
Maintenance and repair workers, general	4,580	1.1	18.07	37,580
Precision instrument and equipment repairers, all other	40	1.0	16.73	34,800
Computer, automated teller, and office machine repairers	200	0.7	16.12	33,530
Coin, vending, and amusement machine servicers and repairers	210	2.0	15.49	32,210
Helpers-installation, maintenance, and repair workers	600	1.6	14.68	30,530
Mechanical door repairers	260	4.2	14.11	29,340
Tire repairers and changers	420	1.2	10.62	22,100

Footnotes:

- (1) For a complete listing of all detailed occupations in the Tulsa, OK Metropolitan Statistical Area, see www.bls.gov/oes/current/oes_46140.htm
- (2) Estimates for detailed occupations do not sum to the totals because the totals include occupations not shown separately. Estimates do not include self-employed workers.
- (3) The location quotient is the ratio of the area concentration of occupational employment to the national average concentration. A location quotient greater than one indicates the occupation has a higher share of employment than average, and a location quotient less than one indicates the occupation is less prevalent in the area than average.
- (4) Annual wages have been calculated by multiplying the hourly mean wage by a "year-round, full-time" hours figure of 2,080 hours; for those occupations where there is not an hourly mean wage published, the annual wage has been directly calculated from the reported survey data.
- (5) Estimates not released.